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(54) PREPARATION OF OPTICALLY ACTIVE  
PROPANE-2-OL DERIVATIVE

a drug such as an antihypertensive agent or an  
antiarrhythmic agent.

(57) Abstract:

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PURPOSE: To profitably prepare the subject optically active compound in a high yield under the ordinary temperature and the ordinary pressure by reducing the aliphatic ketone group of a propane-2-one derivative corresponding to the objective compound with a microorganism, etc., capable of stereospecifically reducing the ketone group into a hydroxyl group.

CONSTITUTION: The aliphatic ketone group of a compound of formula I (R is arbitrarily substitutable phenyl, naphthyl or indole) is reduced with a microorganism such as Brakesria.trispora NRRL 2895 capable of stereospecifically reducing the ketone group into a hydroxyl group or an enzymatic product thereof at 5-50°C, preferably at 20-37°C at a pH of 4-11, preferably 6.4-8.0, to prepare the objective optically active compound of formula III in a high purity under conditions of the ordinary temperature and the ordinary pressure from the optically inactive substance as the raw material. The objective compound of formula III can be readily converted with e.g. isopropylamine into an optically active β-blocking agent of formula II useful as

